CLAIMS

What is claimed is:

1. A system comprising:

a transmitter in a first network node to generate a sequence of symbols, the sequence of symbols including preamble symbols and a data symbol; and

a receiver in a second network node to receive the sequence of symbols generated by the transmitter, the receiver including a frame synchronizer logic to perform frame synchronization.

2. The system of claim 1, wherein a last preamble symbol in the sequence of symbols has a different waveform than other preamble symbols in the sequence of symbols.

3. The system of claim 1, wherein a waveform of a last preamble symbol in the sequence of symbols is different than waveforms of other preamble symbols in the sequence of symbols.

4. The system of claim 3, wherein the difference between the waveform of the last preamble and the waveforms of other preamble symbols provide a way for the frame synchronizer logic to detect the last preamble symbol.

5. The system of claim 3, wherein the last preamble symbol immediately precedes the data symbol and the frame synchronizer logic detects the data symbol by detecting the last preamble symbol.

6. The system of claim 3, wherein the frame synchronizer logic obtains the data symbol by taking a Fast Fourier Transform (FFT) of the preamble symbols, conjugating FFT coefficients, and taking an inverse FFT.

7. The system of claim 3, wherein the frame synchronizer logic obtains the data symbol by adding a constant to each carrier phase of the preamble symbols.

8. A method comprising:

performing a Fast Fourier Transform (FFT) on received symbols;

subtracting phases of FFT coefficients of current symbol from phases of FFT coefficients of previous symbols to produce phase differences;

adding phase differences to produce a sum; and

comparing the sum to a predetermined value.

9. The method of claim 8, further comprising:

applying a filtering in frequency domain prior to subtracting the phases of FFT coefficients; and

recognizing a data symbol if the sum is above the predetermined value.

10. A method comprising:

generating a sequence of symbols, the sequence of symbols including preamble symbols and a data symbol; and

receiving the sequence of symbols generated by the transmitter, the receiver including a frame synchronizer logic to perform frame synchronization.

11. The method of claim 10, further comprising:

using a second waveform to represent a last preamble symbol in the sequence of symbols and a first waveform to represent other preamble symbols in the sequence of symbols, wherein the second waveform is substantially different than the first waveform.

12. The method of claim 11, further comprising:

detecting the last preamble symbol in the sequence of symbols by recognizing the substantial difference between the second waveform and the first waveform.

13. The method of claim 11, further comprising placing the last preamble immediately before the data symbol.

14. The method of claim 11, further comprising detecting the data symbol by recognizing the last preamble symbol.

15. The method of claim 11, further comprising obtaining the data symbol by adding a constant to each carrier phase of the preamble symbols.

16. A machine-readable medium comprising instructions which, when executed by a machine, cause the machine to perform operations comprising:

generating a sequence of symbols, the sequence of symbols including preamble symbols and a data symbol; and

receiving the sequence of symbols generated by the transmitter, the receiver including a frame synchronizer logic to perform frame synchronization.